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ABSTRACT

Based upon selected aspects of the theory of definition as proposed by Leonard (1967), results of the different conceptions of language proficiency are discussed. Properties of definitions, such as ambiguity and vagueness, and basic rules for defining terms are applied to current definitions of language proficiency in order to evaluate their adequacy. Rules of definition include clarity, avoidance of figurative language, avoidance of simple synonyms, and provision of the essential characteristics of the term being defined. English language proficiency has been given different operational definitions depending on the context in which it has been discussed. Guidelines for formulating clearer and more precise definitions of language proficiency are offered. Assessors should specify the attributes with which they are concerned, distinguish between trait names and trait definitions, and consider the types of individuals that they are trying to assess. (RW)

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"Bilingualism, Language Proficiency, and Language Learning: Issues and Definitions"

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Gratitude is expressed to Mr. Adel El Banna who surveyed many of the definitions cited in this paper.

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The terms, "bilingualism," "second language learning " and "proficiency," are inextricably bound up with one another. They seem to stir up more debate than clarity in professional discourse. Very little consensus, except for "what the test measures" criterion, is evident in the uses of these critical terms. Confusion, misinterpretations, and conflicting theoretical beliefs characterize the language assessment landscape as currently understood and practiced by academic scholars and professionals, respectively (Note 1).

Confusion is apparent in the plethora of terms that are used to identify some aspect of the language assessment process over a specific period of time. For instance, there are the terms, "language proficiency," "language dominance," "bilingual proficiency;" another set includes "language aptitude," "language ability," "language attainment," "linguistic academic achievement," and "global language proficiency." With emphasis upon the bilingual individual, such classifications as "balanced bilingual," "equilingual," "comparably limited," and finally, "semilingual vs. alingual" have occurred in the literature produced by academic scholars and professionals, respectively (Note 1). A careful analysis of these terms that have in common the notion of language assessment results more often in confusion instead of clarity.

In addition, misinterpretations are another outcome of the incomplete definitions of these terms and their operations. For example, "limited-English proficient" pupils whose functional language is English are programmed to receive instruction in their primary language to better understand such content area concepts as "sets," "electricity," and "democracy;" or there are first grade

children whose native language is not English and who are taught in English only. In the academic setting, misinterpretations are evident in admission committees rejecting promising bilingual teachers and administrators solely on the basis of standardized test scores that presumably yield valid and reliable information about an individual's English verbal ability.

Besides these misinformed plans of action resulting from the process of language assessment, opposing theoretical frameworks continue to be debated, particularly in the area of the meaning of the term, "language proficiency." While this debate attests to the vitality and dynamism of the fundamental disciplines (Note 1), especially, psycholinguistics and sociolinguistics, academic scholars in these disciplines actively and learnedly continue to refine their knowledge of the forms and functions of language; however, analysis of the types of definitions accorded the notion of language proficiency, to be discussed in a later section, reveals the ambiguity and vagueness in which this important concept is expressed.

The purpose of this article, then, is twofold. Based upon selected aspects of the theory of definition as proposed by Leonard (1967), issues resulting from the different conceptions of language proficiency will be highlighted. Properties of definitions, such as ambiguity and vagueness, and basic rules for defining terms will be applied to judge the completeness of current definitions of language proficiency. The second aim of this article is to recommend certain guidelines in formulating definitions that can be useful to professionals and practitioners in their practical endeavors to

determine this attribute of individuals.

Selected Features of the Theory of Definition

According to Leonard (1967), one of man's great devices for communicating and clarifying the meanings of words or phrases is the definition. A definition usually means the act of stating the signification of a word or phrase, and a statement of the signification of a word or phrase.

Insofar as definitions are acts of stating, they are important pieces of productive discourse. The definer may have different purposes, usually accompanying the statements of the meanings of terms, i.e., cognitive or pragmatic. A cognitive purpose is when the definer wants to affect or change someone's belief or knowledge about the meaning of a term; a pragmatic purpose is evident if the definer's aim is to influence other people to use certain words or phrases in a manner different from that which they have employed in the past. Leonard (1967) has divided the types of definitions in the following original list of exhaustive pairs:

I. Complete --- incomplete
II. Nominal --- real
III. Informative --- hortatory
IV. Linguistic --- conceptual
V. Extensional --- intensional

These types of definitions will be clarified as the need arises in the next section, but they are presented here to indicate the variety of purposes for which individuals can use definitions. (See Note 2 for their meanings).

Definitions are especially helpful in eliminating ambiguous meanings. Since most terms or expressions allow for more than one distinct meaning, e.g., "run: the clock runs, the stocking runs, etc.," there are circumstances in which one cannot tell which of <u>two or more</u> customary meanings of the expression was intended by the user of that expression. This situation can be cleared up by defining each customary use of the term.

Vagueness, on the other hand, presents a difficulty involving only <u>one</u> customary meaning for a word or phrase. The custom in question has never fixed the exact limits of what is included within the meaning of the term. In some circumstances, it is used in a more inclusive sense, in others, in a less inclusive sense, e.g., "greater Chicago," "greater New York." Through the device of definitions, meanings of terms are clarified, thereby reducing vagueness. Figure 1 contrasts the two distinct properties of ambiguity and vagueness:

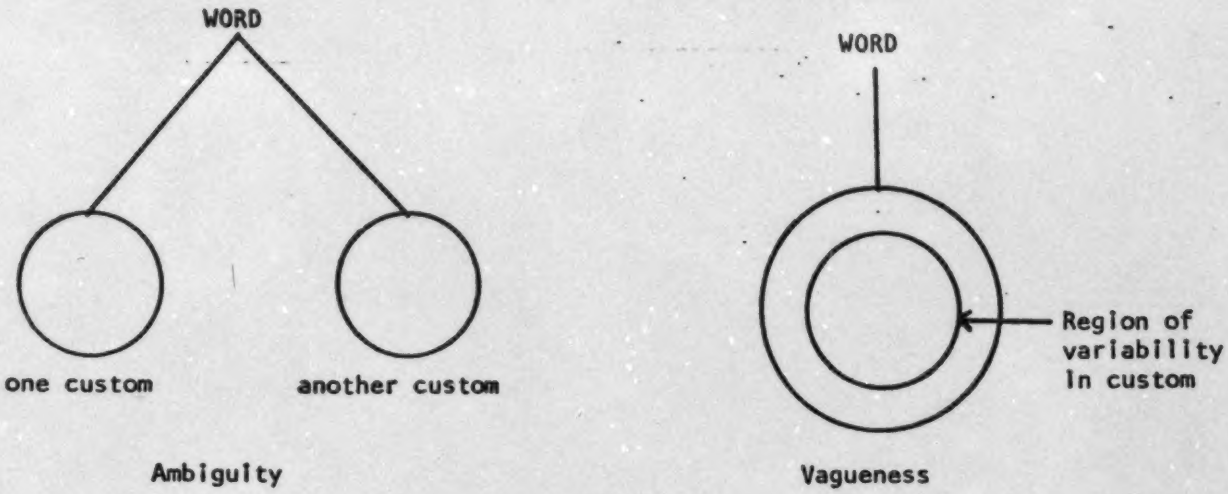

Figure 1. (From Leonard, 1967, p. 27)

Two technical terms employed in the theory of definition are: definiendum and definiens. To illustrate these terms, consider the following expressions:

1. Set $=_{Df}$ a carefully defined collection of elements.

Here the term to be defined is given first (definiendum), then an equal sign, and that in turn followed by the expression which states the meaning of "set," (definiens). However, the normal conventions of English would permit any of these expressions:

2. By a set is meant a carefully defined collection...

3. A set is a carefully defined collection...

4. A carefully defined collection of elements is called a set.

5. Let us understand by the term "set" a carefully defined collection...

What these five definitions have in common, despite their different linguistic contexts, is the expression--definiendum ("set")---to be defined and the expression--definiens ("a carefully defined collection of elements")---selected by the producer as the means of communication. Example one will be the standard form in which definitions will be presented in the rest of this article.

Regardless of the purposes, types, and forms of definitions, certain basic rules for defining terms are useful because they propose certain criteria in terms of which one may criticize definitions that one reads or hears. Leonard (1967) divides these rules into three groups: rules stating literary requirements, those stating factual requirements, and those stating formal requirements. These rules, with brief explanations, are:

Rule I. A definition should be as clear as possible.

Applicable to all discourse, this Rule requires the producer to accompany the key statement of the definition, or its core, with additional remarks that will clarify the kind of definition being proposed, i.e., real, nominal; linguistic, conceptual, etc. (see Note 2).
Unless this is done, or the context indicates the concern of the definer, the definition will not be as clear as possible. In addition, the producer must express the definiens in language that the receiver can be expected to understand. Finally, Rule I recommends the giving of complete, intensional definitions, unless the circumstances dictate another procedure. (A complete, intensional

definition is one intended to explain completely what characteristics are in the total strict intension of the definiendum, e.g., "a circle $=_{Df}$ a closed plane curve all points of which are equidistant from a given point called the center;" contrast this with "a circle $=_{Df}$ the minimum perimeter area of a given size").

Rule 2. A definition should avoid figurative and metaphorical language.

Since definitions are considered as ingredients of technical discourse, as such they should not contain anything tending toward vagueness, imprecision, or obscurity. Metaphorical or figurative expressions, e.g., "the devil" as "the prince of darkness," are vague and imprecise, and do not have a place in any technical discourse. Therefore, the definiens must not employ vague or figurative language.

Rules 1 and 2 state the literary requirements of definitions.

Rule 3. The definiendum and its definiens should be coextensive

This Rule requires that the extensions of the definiendum and definiens, respectively, be identical; nothing must be in the extension of either term which is not in the extension of the other. As illustrations, these violations of Rule 3 are presented:

a. Example: A mazda $=_{Df}$ an automobile

(The definiens is too broad: its extension includes objects that are not in the extension of the definiendum)

b. Example: A mazda $=_{Df}$ a red car used as a means of transportation

(The definiens is too narrow: its extension excludes objects that are in the extension of the definiendum)

c. Example: A mazda = $_{Df}$ a red car.

(The definiens is both too broad and too narrow.)

Rule 4. An intensional definition must give the essential characteristics of the term being defined.

In general, Rule 4 affirms that the total strict intensions of the definiendum and the definiens must be identical. A test of this Rule would find out whether or not: (1) the characteristics "given" in the definiens are necessary members of the total contingent intension of the definiendum, and (2) that set of characteristics is necessarily jointly peculiar to the extension of the definiendum. An example in which Rule 4 is not violated is the following: "Thesaurus = $_{Df}$ a dictionary of synonyms and antonyms." A violation of this rule is evident in this instance: "Giraffe = $_{Df}$ a mammal with extremely long front legs and an extremely long neck;" although some essential characteristics are listed in the definiens, the definition is incomplete, omitting back legs and a black-blotched fawn, also essential characteristics of a giraffe.

Rules 3 and 4 capture the factual requirements of definitions.

Rule 5. The simple definiendum of a definition must not appear in the definiens.

Examples of violations of Rule 5 are: "a house = $_{Df}$ a house;" and "snake = $_{Df}$ the offspring of a snake." Definitions violating this

Rule are said to be circular.

Rule 6. The definiens of a definition should avoid the use of simple synonyms of the simple definiendum.

Rule 6 is applicable to conceptual definitions but not linguistic ones, as in dictionary definitions. A violation of this rule involves the fallacy of word substitution, e.g., "a wagon = $_{Df}$ a cart;" contrast this definition with, "a wagon = $_{Df}$ a wheeled vehicle designed to be drawn by an independent source of power."

Rules 5 and 6 address some of the formal requirements of definitions.

These basic rules for definition, in addition to the process of definition, can be employed in understanding, clarifying, and constructing a definition of the frequently used term, language proficiency.

Current Definitions of Language Proficiency

This section of the paper will summarize current definitions of the term, language proficiency, and apply the concepts and rules for definitions delineated previously.

In an unpublished manuscript, Farhady (n.d.) argues that although current theories of language proficiency testing have generated numerous hypotheses, many have to be questioned because the term is inadequately defined. "Language proficiency is one of the poorly defined concepts in the field of language testing" (Farhady, 1982, p. 44).

Illustrations of this conclusion will follow by citing representative academic scholars and their definitions. The standard form for definitions will be used.

Briere (1972, p. 332), acknowledging the complexities of the concept of language proficiency, states his definition:

Proficiency = $_{Df}$ the degree of competence or the capability in a given language demonstrated by an individual at a given point in time independent of a specific textbook, chapter in the book, or pedagogical method.

This definition is complicated and includes words that are vague and unspecified, e.g., "competence" could refer to linguistic, sociocultural, or other types of competencies. Vagueness is apparent in the use of other terms such as "demonstrated" (how? orally, written modes) and "at a given point in time." Ambiguity is evident in viewing language proficiency as either a competence or capability. This definition, then, appears to violate Rule 1 (clarity) and Rule 4 (requirements of an intensional definition). The concepts of "competence, capability, demonstration, given point in time," must be clarified and the essential characteristics of the term must be identified.

Addressing the area of proficiency testing, Clark (1975, p. 10) adds another feature to the term proficiency:

proficiency test = $_{Df}$ any measurement procedure aimed at determining

the examinee's ability to receive or transmit in the test language for some pragmatically useful purpose within a real life setting.

In this definition, language proficiency includes another element, the use of language for real-life purposes. This definition, then, includes all the complexities of previous definitions in addition to another concept, "real-life setting." What constitutes a "useful purpose within a real-life setting" remains unclear and vague. In another article focusing upon the differences between direct and semi-direct tests of speaking ability, Clark (1979, p. 37) employs the term "global proficiency:"

Global proficiency = the examinee's ability to carry out various language-use tasks appropriately and effectively in realistic communication settings.

This definition remains incomplete and vague because "carry out" and "language-use tasks" are not specified; furthermore, Rule 3 is violated since the definiens is too narrow: it excludes academic settings that require individuals to be proficient in classroom communication.

Upshur (1979), formulating a functional proficiency theory for language tests, distinguishes two kinds of language proficiency:

1. Language proficiency $=_{Df}$ a relation between an individual and a situation requiring the use of language.

2. Language proficiency $=_{Df}$ a psychological capacity of an individual which together with other capacities enables him to function in

a situation requiring the use of language.

In Upshur's view, tests developed with this definition in mind, essentially language tests for research purposes, seek to answer the question, "Does somebody have proficiency?"

Although this conceptual distinction between two types of language proficiency merits closer attention because of its implications for the validity of such tests, greater clarification of both definitions is necessary. For example, the use of the term "relation" in the first definition remains vague, even in the vivid examples provided by Upshur: what kind of relation is meant? The second definition violates Rule 3 despite the following claim: "We find that the construct of proficiency has become virtually coextensive with human psychology" (Upshur, 1979, p. 83). The definiens of the second definition has become too broad according to this statement; moreover, the definition does not meet the requirements of Rule 4 whereby the essential characteristics of the term are identified.

These definitions of academic scholars, in particular, the areas of linguistics, psychology, and psychometrics, have their origins in the testing of foreign language proficiency. The next set of definitions addresses the educational development of limited-English proficient individuals and varying theoretical viewpoints toward language proficiency are evident.

In an article that delineates some guidelines for the assessment of oral language proficiency, Burt and Dulay (1978, p. 178) present the following definition:

Language proficiency = $_{Df}$ the degree to which an individual exhibits control over the use of the rules of a language for one, some, or all of its numerous and diverse aspects.

These aspects include "the phonological, syntactic, lexical and semantic systems, and discourse and stylistic rules for oral and written communication for different varieties of a given language in various domains and social circumstances." This definition, in contrast to the previous ones that emphasize the individual's ability to use language for real-life contexts, focuses attention upon the multidimensional nature of language proficiency, in particular, the subsystems of a language. What remains unclear and ambiguous in their definition is the phrase, "exhibits control," which later in the same article is distinguished by means of two types of oral language elicitation tasks, natural communication vs. linguistic manipulation tasks, respectively. The former task, while demanding the communication of something to someone, yields the speaker's unconscious use of language rules; the latter, where the focus of the individual is on performing a conscious linguistic manipulation of the language demonstrates the individual's meta-linguistic awareness. Two different meanings are implied by the phrase, "exhibits control;" one is conscious control and the other is subconscious. Moreover, the nature and types of language rules are never clarified. Rule 4 is violated in this definition because the definiens does not list the necessary characteristics of the definiendum: proficiency is never clearly defined

whereas language is comprehensively covered.

DeAvila and Duncan (1980, p. 111) view the term as follows:

> Language proficiency $=_{Df}$ the student's language skills in English which are learned in both school and natural settings.... It is not necessarily dependent upon specific instruction or content, language achievement is more likely to be dependent upon proficiency than vice-versa.

Examination of the technical manual accompanying their test, Language Assessment Scales (LAS) (DeAvila and Duncan, 1975), indicates that a student's oral language proficiency is viewed as performance across four linguistic subsystems, instead of one, single aspect of language. These are: 1) the phonemic, 2) the referential, 3) the syntactical, and 4) the pragmatic subsystems. Their definition represents a different theory of language proficiency from that of Burt and Dulay; in addition, confuses achievement and proficiency, and never specifies language skills that are learned in school and those acquired in natural settings. Rules 1 and 4 are violated in this definition.

Cummins (1978; 1979) divides language proficiency into "cognitive academic linguistic proficiency" (CALP) and "basic interpersonal communicative skills" (BICS).

> CALP $=_{Df}$ the ability to make effective use of the cognitive functions of the language, i.e., to use language effectively as an instrument of thought and represent cognitive operations by means of language.

An illustration of CALP would be the individual who is in tune with the semantic complexity of a language both denotative and connotative, and is capable of carrying out cognitive operations in the language. CALP is in contrast with BICS, or the "surface" linguistic features such as pronunciation, vocabulary, fluency, sociocultural competence, accent. CALP is definitely an important concept because of the nature and requirements of classroom learning with its emphasis upon literacy skills and deriving meaning from printed materials. However, CALP as a definition of language proficiency suffers from vagueness in the use of the phrase "cognitive functions;" are analogies, synonyms, antonyms meant by these functions? Moreover, how does one's knowledge of the technical aspects of language, e.g., morphology and syntax, relate to CALP? Because the essential characteristics of CALP are not specified, Rule 4 is violated, thereby making this definition incomplete.

This analysis of current definitions of the term, language proficiency, based upon selected features of the theory of definition, has demonstrated the different theoretical viewpoints attached to its meaning. Issues relating to different assumptions of language and proficiency, to purposes in testing language proficiency, and to the meanings of this term were identified. Dieterich and Freeman have appropriately summarized the state of art (1979, p. 2): "English proficiency---what it is to know English---is given different operational definitions in each theoretical, historical, and legislative context." In addition, this section has shown the need for greater clarity and precision in the use of this term on the part of those who will define it. What procedures, then, can be employed in the construction of a definition of the complex term, language proficiency?

Some Guidelines for Defining Language Proficiency

The following guidelines, although incomplete, are suggested as aids in assisting professionals and practitioners in their practical endeavors to assess the language proficiency of their students. Before these guidelines are presented, the term, assessment, must be clarified in relation to measurement and evaluation. They are adapted from Ryan and Cruz (1974, pp. 4-5) and defined within a view of education that is contextualistic, i.e., educators---administrators, teachers, parents---are called upon each working day to make decisions about the curriculum and its relevance to the student. To enable these educators to make the best decision (and not necessarily the ideal one), various forms of information are gathered and interpreted.

Measurement, evaluation, and assessment are terms that are applicable to the types of decisions made by educators in the context of helping students understand their world.

Measurement: the application of a standard to a set of data.

Example: (1) This pencil is 6 inches long.

(2) Jose, a fourth grade pupil, is reading English at the 2.1 grade level (according to test manual norms).

Measurement: information + a standard

Evaluation: the consideration of a set of measurement data in terms of specified priorities for change.

Example: (1) This 6 inch pencil is not long enough to reach the floor.

(2) Since Jose is in the first month of grade 4, he's labelled as "limited English proficient," or a "slow reader."

evaluation: information + a standard + priorities

Assessment: a process or program of inventorying an individual's strengths and weaknesses, skills, and attitudes that are useful in relating to the roles and symbolic conditions required by various educational tasks. (Note 3)

Example: (1) Although this 6 inch pencil is not long enough to reach the floor, this new pointer that folds into itself helps me do the job more effectively and easily.

(2) Although this standardized test places Jose at the 2nd grade level in reading, empirical observations of Jose in class indicates he can read most materials presented to him and interacts in a positive manner with other students in the class.

Assessment: information + standard + priorities + context

While the terms, measurement, evaluation, and assessment are interrelated, assessment is to be preferred as a basis for decision-making in educational contexts. This conclusion is based upon the notion that the context or situation does make a difference.

With these distinctions in mind, the following guidelines are presented in constructing a definition of language proficiency. Analysis

of the definitions in the previous section had one common feature: individuals differ among and within themselves with regard to language proficiency. The use of such words and phrases as "degree of competence," "capacity," "control over the rules of language," and "cognitive operations," are indicators of these individual differences; furthermore, classifications such as linguistic subsystems or types of relative language proficiency---"proficient bilinguals," "partial bilinguals"---point out the following rule: individuals differ among themselves in language proficiency or ability.

One guideline, then, is to specify or define the property with which one is concerned. This definition, in turn, will yield a series of operations that will allow the description of individuals in terms of that property. According to Ghiselli (1964, p. 16), "a good definition of a variable is precisely formulated." Specificity identifies the essential characteristics of the property and facilitates the development of a series of operations that enable one to observe similarities and differences among individuals. Adherence to the rules for defining terms, awareness of the definer's aims, and avoidance of vague and ambiguous expressions will help in the statement of precisely formulated definitions.

Another guideline is to distinguish between what Ghiselli (1964) calls "trait names" and "trait definitions." Trait names are employed to identify, label, and reasonably represent the definition of a property. As illustrated in the previous section, the label, "language proficiency," was used to represent several different definitions, and since the name comes from the definition, it would be mistaken to claim

that one or the other is a better or more valid definition of "language proficiency." Care must be exercised in comparing the results of different definer's or the findings with different language proficiency tests in which the same property is nominally involved.

Another guideline of particular importance to bilingual educators is the kinds of individuals with whom one is trying to determine the property. The kinds of individuals of concern to educators have an important influence upon the way in which one may define the property. Ghiselli (1964, p. 18) captures this guideline: "variables defined in certain ways are not appropriate for certain kinds of individuals. A consideration of the nature of the individuals may require us to redefine the variable. Furthermore, the nature of the individuals may dictate the type of variable we conceive ours to be." Justification for this attention upon the nature of the individual is evident in the use of such terms as language minority student, relative language proficiency, language dominance, and bilingual discourse; in addition, the articles by Farhady (n.d.) and Garcia (1980) address this relationship of learner attributes and language proficiency.

These few guidelines pertaining to the definition of language proficiency were presented as suggestions to professionals and practitioners as they endeavor to assess the cognitive and linguistic capacities of different individuals. Once a clear and precise definition is formulated, one is in a position to develop operations that permit the observation of individual differences in the property (Note 4). This summary aptly describes the dynamic process of defining.

Reference Notes

1. "Academic scholars" refer to those individuals of an academic community who generate a fundamental discipline (e.g., linguistics, psychology, mathematics) that consists of a body of knowledge made up of pure and distinctive forms of information pertaining to some phenomenon; "academic," in this use of the term, means not constrained by practical consideration, or learned and scholarly, but not necessarily practical. "Professionals" refer to those individuals responsible for establishing applied or derivative fields of knowledge (e.g., medicine, law, engineering) that include those bodies of information composed of concepts and terms from the fundamental disciplines and cognate "fields" to deal with practical problems and phenomena found in those aspects of the human condition to which these specializations pertain. See J. E. Hill (1981) for a more detailed discussion of this important distinction.

2. These ten types of definition provide a jointly exhaustive pair, i.e., every definition is either complete or incomplete, nominal or real, etc. These types are defined as follows (Leonard, 1967, pps. 608-616):

   I. Complete definition: an act of definition intending completely to give the signification of its definiendum. Incomplete definition: one intended only partially to explain the signification of its definiendum.

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